AGROFORESTRY POLICY IN THE USA AND EUROPE

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Abstract

Agroforestry is a sustainable land use that has been recently recognized in both the United States and Europe. A brief summary of the current status and extent of agroforestry in USA and Europe is described in this paper as well as the current policies and the role of the innovation working groups in both areas. We also provide insights for better development of agroforestry across the USA and Europe by indicating the main challenges that should be overcome.

Keywords: policy recommendations; challenges; opportunities; obstacles; working groups

Introduction

Agroforestry has been modernly practiced in Europe since the beginning of XXI century while in the United States since at least the 1930s when trees were planted by the Conservation Corps in both windbreaks and in mixed cropping practices in response to the environmental and economic crisis of the "dustbowl era." Agroforestry has likely been practiced in various forms and through intentional management by Native Americans and early European settlers since much earlier. Science-based agroforestry research and practice in the USA began gaining traction in the 1970s, when different research institutions in Europe started to focus on agroforestry (Rigueiro-Rodríguez et al. 2000; Papanastasis et al. 2009; Castro 2009). The Association for Temperate Agroforestry (AFTA) was established as a nonprofit organization by research scientists and university educators in the mid-1980s to promote and advance the science and practices of agroforestry in the temperate zone, while the European Agroforestry Federation (EURAF) was established in 2011 with the same aim but in Europe.

A few countries around the globe have developed and adopted a fully articulated national policy on Agroforestry (e.g. France, India, Nepal, México) while in many other countries there have been varying forms of support such as strategic frameworks for agroforestry, agroforestry centers established, research funded, incentive programs created etc. In the United States, a National Agroforestry Center was established in 1991 and a comprehensive National Agroforestry Strategic Framework was developed for the period 2011-2016. A formal agroforestry policy is still lacking in the USA and agroforestry development has been limited in scope and assisted to some degree through policies and supportive programs in a range of sectors - agricultural, forestry, conservation, rural development at different levels of government. In Europe, an agroforestry specific measure was included as part of the 2007-2013 Common Agrarian Policy (CAP) which allows European Union countries to open the measure and implement it at European level. However, and due to various reasons the implementation of this measure across Europe was not very successful (Santiago-Freijanes et al. 2018).

This presentation will provide an update and overview of policy development for agroforestry in the United States and Europe, including the current status, policy development, opportunities, working groups, obstacles and key policy recommendations.

Current status of agroforesrtry in the US and Europe

In the United States, little data exists on agroforestry adoption across the landscape. Forests, farmland and pasture in the US total around 716 million ha and the total land in agroforestry in any of these sectors does not exceed 1% (USDA 2013). The actual extent of all agroforestry practices, alley cropping, windbreaks, riparian forest buffers, managed silvopasture and forest farming, might amount to 3 million ha, or approximately 0.42% of productive landscapes suitable for agroforestry (Jose 2017). Formal data collection on agroforestry through the USDA agricultural census first began in 2012, with a single question asking whether alley cropping and silvopasture were practiced. Across the United States a total of 2725 farms responded affirmatively, but no information on total hectares was collected. Expanded data collection on agroforestry is planned for the 2018 agricultural census. Some information can be garnered from participation in federal cost share assistance programs of the Natural Resources Conservation Service. Between the period 2008–2012, assistance by USDA programs to implement windbreaks, riparian forest buffers, and alley cropping was provided for approximately on 336,000 acres, or less than 1% percent of suitable cropland with agroforestry potential.

In Europe, an inventory of main agroforestry practices, silvopasture, silvoarable or alley cropping, forest farming, homegardens and riparian buffer strips have been carried out by den Herder (2017) identifying the tree-based agroforestry areas and Mosquera-Losada et al. (2018) identifying the tree/shrub-based agroforestry areas. Close to 20 million of hectares in Europe can be allocated to different types of agroforestry mainly in the southern countries of Europe. Agroforestry has a huge potential depending on the CAP funded area we are considering, over 99% and 90% of the arable and permanent grassland lands can potentially include agroforestry practices and be used to increase sustainability and ecosystem services delivery.

Agroforestry policy development

Since interest in agroforestry research began to emerge in the 1970s, a number of supportive programs have emerged, such as the Conservation Reserve Program created in the 1985 Farm Bill and administered by the Farm Services Agency, responding to the farm crisis of the 1980's. Several other programs administered by the Natural Resources Conservation Services (NRCS) providing cost share or incentives for adoption of conservation measures and agroforestry practices have been created by successive farm bills. The USDA National Agroforestry Center (NAC), originally established as a center for semi-arid agroforestry under the 1990 Farm Bill, was expanded into a US Forest Service and NRCS partnership in 1995. The NAC, in coordination with a network of partners, seeks to advance agroforestry science and adoption, but has not been consistently fully funded or staffed, including key positions like the NRCS Lead Agroforester.

A comprehensive National Agroforestry Strategic Framework was developed for the period 2011-2016, under which an interagency agroforestry steering committee was convened. The stated intention to develop and release a formal agroforestry policy statement, as indicated in the framework, however, has not yet been realized. Efforts are currently ongoing to update and release a new agroforestry strategic framework. An AFTA led policy working group has recently been formed and work is proceeding on an analysis of current policies and regulations impacting agroforestry, and articulating a policy platform with specific recommendations and goals for creating a policy environment favorable to advancing agroforestry research, education and adoption.

Agroforestry policy measures in Europe have been included as part of the CAP by the European Commission in the periods 2007-2013 and the current 2014-2020. When in the first period only agroforestry establishment were able to be funded, nowadays and thanks to the recent 1307/2013 regulation both establishment and maintenance of the established plots for a period of 5 years are possible. Moreover, the recent CAP 2014-2020 modification in the so called OMNIBUS allows the agroforestry measure to improve already existing agroforestry systems.

Opportunities for advancing agroforestry through existing programs and policies

Despite the absence of a coherent agroforestry policy statement in the US, there are numerous policies and programs that have been favorable to or present opportunities for advancing agroforestry adoption. For example, the Natural Resource Conservation Service (NRCS) in addition to major programs (EQIP, WHIP, CREP, CSP) providing financial incentives and technical assistance, has also established several practice standards relevant to agroforestry, such as practice standard #381 for silvopasture establishment. These, along with other relevant Farm Bill programs that present opportunities for agroforestry development, from the Forest Stewardship Program, the Sustainable Agriculture Research and Education (SARE), Organic Agriculture Research and Extension Initiative (OREI), and the Specialty Crop Research Initiative (SCRI), will be discussed. In Europe, besides the "agroforestry measure" around 29 measures in the CAP 2007-2013 and 27 measures in the CAP 2014-2020 can be recognized that fosters agroforestry in different European countries. The so called agroforestry measure is more used to foster agroforestry than the proper agroforestry measure (measures 222 and 8.2 in CAP 2007-2013 and CAP 2014-2020, respectively). However, there is not a clear recognition of the agroforestry practices as such by both policy makers and farmers, but indeed a recognition of the positive role that the combination that woody perennials (trees or shrubs) with agricultural products delivery from the lower storey have for delivering ecosystem services.

Role of partnerships and agroforestry working groups

Multi-stakeholder partnerships have been important for advancing agroforestry, their role and contribution, as well as that of numerous regional Agroforestry Working Groups and Associations will be discussed. Several regional working groups (Northeast Mid-Atlantic Agroforestry Working Group, Mid-America AF working group, the 1890's consortium), networks and non-profit organizations (e.g. Green Lands Blue Waters, Chesapeake Bay initiative, Savanna Institute etc.) have been established and played important roles in outreach, coordination and advancing agroforestry adoption and policy development at various scales. Europe has also established agroforestry working group within the multi-actor innovation approach concept. One of the 17th thematic networks in Europe is about agroforestry, the so called Agroforestry Innovation Network (AFINET) which is based on 9 Regional Innovation networks (RAINs) placed in 9 different European Union countries. These RAINs are composed by farmers (at least 30%), that meet every six months to discuss about main challenges to be overcome to foster agroforestry as well as the main innovations and dissemination activities that should be carried out to increase agroforestry adoption across Europe (Villada et al. 2018).

Major policy obstacles to agroforestry adoption

There are a number of policies and programs in the US that present significant obstacles to agroforestry adoption. Several examples, such as Farm Services Agency (FSA) programs for counter-cyclical payments, crop insurance and others policies that present disincentives to farmers to invest in longer term perennial crops or mask the true costs and risks of unsustainable practices, along with opportunities for incentives to support more sustainable agricultural practices that could be addressed by policy measures are considered. From a policy point of view, the main obstacle for agroforestry adoption in Europe is linked to the maximum tree density allowed for permanent grasslands and arable lands to receive direct payments. The lack of ensuring Pillar I payments when establishing an agroforestry plot funded under Pillar II (measure 222 and 8.2) measure prevents a lot of farmers from agroforestry adoption. Also the lack of an adequate system of education that help farmers to better implement agroforestry should be fostered at European level.

Key policy recommendations

Some of the priorities and key policy recommendations for advancing agroforestry in the US include, funding the National Agroforestry Center, making changes in the CRP program to allow

harvesting and providing incentives for “productive conservation” approaches, changes to crop insurance and counter cyclical payment programs and increased support for agroforestry research, education and capacity building for expanded technical service provision. In Europe recommendations will be linked to invest more in research dealing with the optimization of agroforestry components at spatial and time scale, fostering the use of native woody legumes to make the systems more sustainable, providing better added-value through certification, invest in education and innovation.

Acknowledgements

We are grateful to the European Commission through the AFINET project from the European Union´s H2020 Research and Innovation Programme under grant agreement no 727872. The views and opinions expressed in this article are purely those of the writers and may not in any circumstances be regarded as stating an official position of the European Commission.

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